United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, D.C. 20240

TAKE PRIDE IN AMERICA

Site: Carrier
Break: 1.5
Other:

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ER-89/797

Mr. Narindar Kumar
Chief of State Program Section
Environmental Protection Agency
345 Courtland Street
Atlanta, Georgia 30365

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DEC 05 1991

Dear Mr. Kumar:

The Department of the Interior has completed a Preliminary Natural Resources Survey (PNRS) pursuant to IAG #DW14933774-1 for the Carrier Air Conditioning Company Site, Collierville, Shelby County, Tennessee. This PNRS is based on the review of the RI/FS, Endangerment Assessment, and an onsite investigation conducted February 22, 1991.

Background

The site occupies an area of minor relief in the Gulf Coastal Plain Physiographic Province. Surface drainage is provided by Noconnah Creek, a channelized tributary of the Mississippi River. The area surrounding the site has been heavily impacted by commercial and residential development. A wooded riparian zone borders Nonconnah Creek and widens into a stand of second-growth hardwood timber.

Carrier Air Conditioning Company manufactures air conditioners at the site, and until recently used the solvent trichloroethylene (TCE) as a degreaser in the manufacturing process. The company experienced three releases of TCE into the environment between 1978 and 1985. Subsequent to the last spill, soil and water samples were collected and analyzed. Low levels of TCE were found in the samples.

Trust Resources

No Department lands or facilities, or anadromous fish occur in the area.

A variety of migratory birds may occur in the vicinity of the site, including waterfowl such as mallards, black ducks, and wood ducks; raptors such as red-tailed and red-shouldered hawks; wading birds such as the great blue heron; and numerous passerine species.

Federally endangered species reported from Shelby County are the Indiana bat, bald eagle, peregrine falcon, wood stork, and turgid-blossom pearly mussel. Species occurring in the county which are currently under review for Endangered or Threatened status are the southeastern big-eared bat, blue sucker, and alligator snapping turtle. Of the federal trust species, passerine birds are the group most likely to make use of the limited habitat available in the survey area.

Impacts to federal trust species in the vicinity of chemical spills such as those which occurred at the site are generally indirect rather than direct. Birds that feed on vegetation or invertebrates in and around the site risk secondary exposure to contaminants that may have accumulated in the tissues of these food items. The same is true for raptors which feed on small vertebrates (e.g., mice) that may have accumulated body-burdens of site-related toxic chemicals. Piscivorous wading birds and raptors likewise may be subjected to contamination through feeding on fish which have bioaccumulated toxins from adjacent polluted streams. The Indiana bat feeds extensively on emerging aquatic insects along stream corridors and is therefore also subject to secondary exposure from polluted waters.

Conclusion

While no bioassays were performed on the vegetation, vertebrates and fish on and adjacent to the site, water quality samples and benthic samples taken tested negative for TCE. This was not unexpected, since the highly volatile nature of the compound precludes a high degree of persistence when exposed to air and surface water. The low levels of TCE found in the soil and ground water at the site should have no adverse effect on fish and wildlife. Therefore, due to the absence of the compound in surface and benthic samples, its known lack of persistence, and the minimal value of the area to our trust natural resources, the Department anticipates no continuing negative impacts from the TCE releases.

We would be willing, therefore, to agree to a covenant not to sue for damages to natural resources under our trusteeship. In the event that additional information shows significant injury or the potential for significant injury to our trust natural resources, we may reconsider this position.

Our Departmental contact for this project is James H. Lee, the Regional Environmental officer. He can be reached at 331-4524.

Sincerely,

Jonathan P. Deason
Director
Office of Environmental Affairs